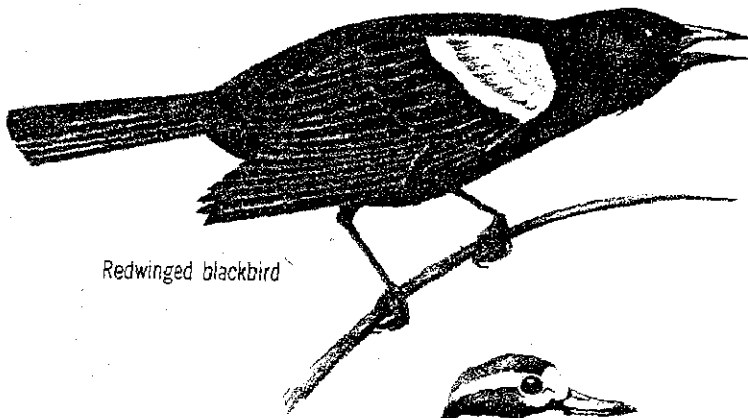


Appendix A

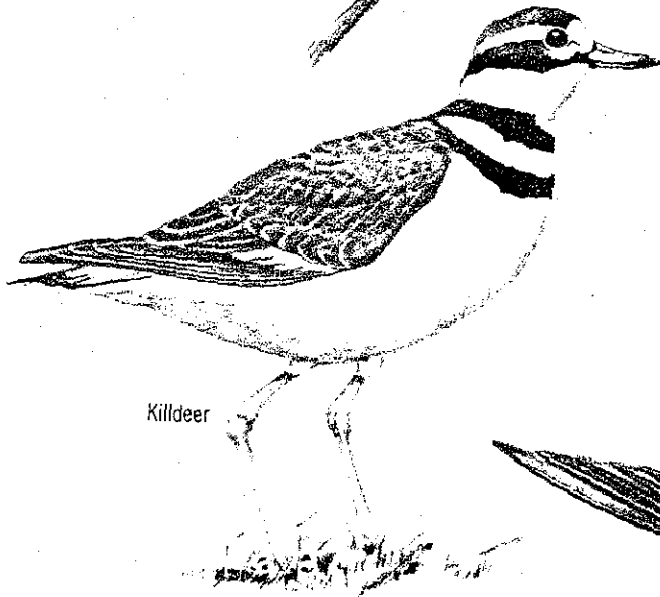
Bird List - 1995

Tuolumne River Regional Park

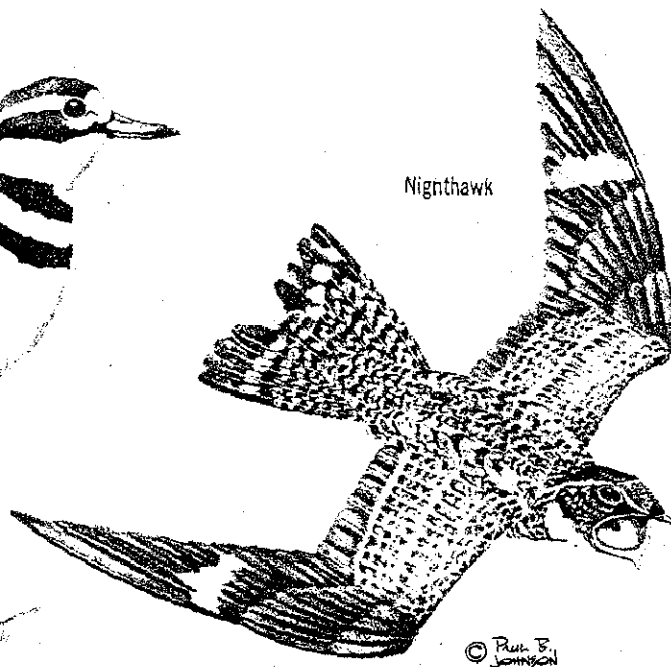
Source: Ecology Action Educational Institute, Inc.



Redwinged blackbird



Killdeer



Nighthawk

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Illustrations by Paul B. Johnson, courtesy California Department of Fish and Game

Appendix A

Bird List - Tuolumne River Regional Park, 1995

Pied-Billed Grebe	Yellow-billed Magpie
Double Crested Cormorant	American Crow
Wood Duck	Plain Titmouse
Mallard	Bushtit
Muscovy Duck	White-Breasted Nuthatch
Fulvous Whistling Duck	House Wren
White-tailed Kite	Bewick's Wren
Northern Harrier	Mockingbird
Red-Shouldered Hawk	Varied Thrush
Red-tailed Hawk	American Robin
Swainson's Hawk	Hermit Thrush
Osprey	Western Bluebird
Kestrel	Loggerhead Shrike
California Quail	Rudy-Crowned Kinglet
Ring-Necked Pheasant	Cedar Waxwing
Great Egret	European Starling
Great Blue Heron	Yellow-Rumped Warbler
Green Heron	Orange Crowned Warbler
American Coot	Brewer's Blackbird
Ring-Billed Gull	Northern Oriole
Mourning Dove	Brown Headed Cowbird
Rock Dove	Black Headed Grosbeak
White-throated Swift	House Finch
Anna's Hummingbird	American Goldfinch
Belted Kingfisher	Lesser Goldfinch
Northern Flicker	Rufous-sided Towhee
Nuttall's Woodpecker	Golden-crowned Sparrow
Acorn Woodpecker	White-crowned Sparrow
Downy Woodpecker	Fox Sparrow
Ash-Throated Flycatcher	Lincoln's Sparrow
Cliff Swallow	Oregon Junco
Tree Swallow	
Rough-Winged Swallow	
Scrub Jay	

Appendix B

Tuolumne River Plant Species List

source: prepared by McBain and Trush, 1996, for
Tuolumne River Technical Advisory Committee
(Don Pedro Project, FERC Project No. 2299)

Tuolumne River Plant Species List

This is a list of plants commonly encountered in the Tuolumne River corridor during the first phase of riparian classification. Common names and taxonomy are taken from Hickman, (1993). The scientific name is followed by: (N) for native, (IN) for invasive native, (E) for exotic, and (IE) for invasive exotic. The SCS codes are taken from the soil conservation service index. SCS codes that are followed an asterisk are plants for which there was no found code.

	Scientific Name	Common Name	Locality	Habit	USFWS Hydric Code	SCS Code
1	<i>Acer negundo</i> var. <i>californicum</i>	Box Elder	N	Tree	FACW	ACNEC2
2	<i>Aesculus californica</i>	California Buckeye	N	Tree		AECA
3	<i>Ailanthus altissima</i>	Tree of Heaven	IE	Tree	FACU	AIAL
4	<i>Alnus rhombifolia</i>	White Alder	N	Tree	FACW	ALRH2
5	<i>Eucalyptus camaldulensis</i>	Red Gum, River Red Gum	IE	Tree		EUCA2
6	<i>Eucalyptus</i> sp.	Gum Tree	IE	Tree		EUSP*
7	<i>Fraxinus latifolia</i>	Oregon Ash	N	Tree	FACW	FRLA
8	<i>Fraxinus dipetela</i>	Ash	N	Tree	FACW	FRDI2
9	<i>Juglans californica</i> var. <i>californica</i>	Southern California Walnut	N	Tree	FAC	JUCA
10	<i>Juglans regia</i>	Persian or English Walnut	E	Tree	FAC	JURE*
11	<i>Morus alba</i>	Fruitless Mulberry	E	Tree		MOAL
12	<i>Pinus sabiniana</i>	Grey Pine, Foothill Pine	E	Tree		PISA2
13	<i>Platanus racemosa</i>	Western Sycamore	N	Tree		PLRA
14	<i>Populus fremontii</i>	Fremont Cottonwood	N	Tree	FACW	POFR2
15	<i>Quercus douglasii</i>	Blue Oak	N	Tree		QUDO
16	<i>Quercus lobata</i>	Valley Oak, Roble Oak	N	Tree	FAC	QULO
17	<i>Quercus lobata</i> x <i>douglasii</i>		N	Tree		QULXD*
18	<i>Quercus wislizenii</i> var. <i>wislizenii</i>	Interior Live Oak Tree form	N	Tree		QUWIW
19	<i>Robinia pseudoacacia</i>	Black Locust	E	Tree	FAC	ROPS
20	<i>Salix babylonica</i>	Weeping Willow	E	Tree	OBL	SABA2
21	<i>Salix gooddingii</i>	Goodding's Black Willow	N	Tree	OBL	SAGO
22	<i>Salix laevigata</i>	Red Willow	N	Tree	OBL	SALA*
23	<i>Salix lucida</i> ssp. <i>lasiandra</i>	Pacific Willow	N	Tree	OBL	SALUL
24	<i>Tamarix</i> sp.	Tamarisk	IE	Tree		TASP*
25	<i>Acer saccharinum</i>	Silver Maple	E	Tree		ACSA*
26	<i>Catalpa bignonioides</i>	Catalpa	E	Tree		CABI*
27	<i>Ulmus americana</i>	American Elm	E	Tree		ULAM*

	Scientific Name	Common Name	Locality	Habit	USFWS Hydric Code	SCS Code
62	<i>Brassica nigra</i>	Black Mustard	E	Herb		BRNI
63	<i>Conium maculatum</i>	Poison Hemlock	E	Herb		COMA2
64	<i>Eremocarpus setigerus</i>	Turkey Mullien	N	Herb		ERSE3
65	<i>Melilotus alba</i>	White Sweet Clover	IE	Herb		MEAL2
66	<i>Melilotus officinalis</i>	Yellow Sweet Clover	IE	Herb		MEOF
67	<i>Oenothera elata ssp hirsutissima</i>	Evening Primrose	N	Herb		OEELH
68	<i>Osmorhiza brachypoda</i>	California Sweetcicely	N	Herb		OSBR
69	<i>Oxalis corniculata</i>	Oxallis	IE	Herb		OXCO
70	<i>Plantago major</i>	Common Plantain	N	Herb		PLMA2
71	<i>Ricinus communis</i>	Castor Bean	E	Herb		RICO*
72	<i>Solanum americanum</i>	Nightshade	N	Herb		SOAM
73	<i>Verbascum blattaria</i>	Moth Mullien	IE	Herb		VEBL
74	<i>Verbascum thapsus</i>	Mullien	N	Herb		VETH
75	<i>Vicia americana</i>	American Vetch	N	Herb	FACU	VIAM
76	<i>Arundo donax</i>	Giant Reed	IE	Grass		ARDO4
77	<i>Avena fatua</i>	Wild Oat	IE	Grass		AVFA
78	<i>Bromus sp.</i>		IE	Grass		BRSP*
79	<i>Bromus tectorum</i>	Cheat Grass	E	Grass		BRTE
80	<i>Cynodon dactylon</i>	Bermuda Grass	IE	Grass	FAC	CYDA
81	<i>Echinochloa crus-galli</i>		IE	Grass		ECCR
82	<i>Paspalum dilatatum</i>	Dallis Grass	IE	Grass	FAC	PADI3
83	<i>Polypogon maritimus</i>	Beard Grass	IE	Grass	FACW	POMA10
84	<i>Setaria pumila</i>		IE	Grass		SEPU8
85	<i>Adiantum jordanii</i>	California Maidenhair fern	N	Fem		ADJO
86	<i>Selaginella hansenii</i>	Spike Moss	N	Fem		SEHA2
87	<i>Pentagramma triangularis</i>	Golden Backed Fern	N	Fem		PETR7
88	<i>Woodwardia fimbriata</i>	Giant Chain Fern	N	Fem		WOFI
89	<i>Cuscuta sp.</i>	Dodder	IN	Parasite		CUSP*
90	<i>Phorodendron macrophyllum</i>	Poplar Mistletoe	N	Parasite		PHMA18
91	<i>Carex sp.</i>		N	Em Herb		CASP*
92	<i>Ceratophyllum demersum</i>	Hornwort, Common coon's tail	N	Em Herb	OBL	CEDE4
93	<i>Egeria densa</i>	Brazilian Waterweed	IE	Em Herb	OBL	EGDE
94	<i>Eichhornia crassipes</i>	Water Hyacinth	IE	Em Herb	OBL	EICR
95	<i>Eleocharis sp.</i>	Spike Rush	N	Em Herb		ELSP*

	Scientific Name	Common Name	Locality	Habit	USFWS Hydric Code	SCS Code
96	<i>Elodea canadensis</i>	Common Waterweed	N	Em Herb	OBL	ELCA7
97	<i>Juncus effusus</i>		N	Em Herb	OBL	JUSP*
98	<i>Lemna minor</i>	Duckweed	N	Em Herb	OBL	LEMI3
99	<i>Ludwigia repens</i>	Water Primrose	N	Em Herb	OBL	LURE2
100	<i>Myriophyllum aquaticum</i>	Parrots Feather	IE	Em Herb	OBL	MYAQ2
101	<i>Myriophyllum hippuroides</i>	Western Milfoil	N	Em Herb	OBL	MYHI
102	<i>Potamogeton crispus</i>	Crispate-Leaved Pondweed	IE	Em Herb	OBL	POCR3
103	<i>Scirpus acutus</i> var. <i>occidentalis</i>	Tule	N	Em Herb	OBL	SCACO
104	<i>Typha latifolia</i>	Broad-Leaved Cattail	IN	Em Herb	OBL	TYLA
105	<i>Hydrocotyle verticillata</i>		IE	Em Herb	OBL	HYVE2
106	<i>Equisetum arvense</i>	Common Horsetail	IN	Em Fern	FAC	EQAR

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Appendix C

Sensitive Wildlife and Plant Habitat

Modesto Urban Area

source: City of Modesto General Plan update,
pages IV-12-1 through 3 and IV-12-9 through 16

SECTION 12 LOSS OF SENSITIVE WILDLIFE AND PLANT HABITAT

I. EXISTING CONDITIONS

This section describes how development associated with all four alternatives, by expanding the Sphere of Influence and developing on land within the present sphere, can mitigate the impacts associated with loss of sensitive wildlife and plant habitat within the City of Modesto.

A. BASE YEAR (1994) CONDITIONS

1. Overview

The Modesto Urban Area hosts a variety of natural and altered habitats supporting a diverse assemblage of plant and animal species. Many of these species depend upon natural areas and linkages between natural areas for their survival. Other species are well adapted to and proliferate in urban areas. This second category of species may have deleterious impacts on native, sensitive, and other species which may lead to the reduction of biological diversity.

Protection of unique communities and biological diversity is essential to the quality of life in Modesto. Failing to protect biodiversity has many results, including 1) endangering and risking the extinction of valuable species, or 2) creating a situation in which native species are dominated by nonnative or so-called pest species.

2. Description of Area Habitats

The following vegetation and wildlife habitat descriptions follows the California Department of Fish and Game (CDFG) Wildlife Habitat Relationships classification system (Mayer and Laudenslayer, 1988), and California Vegetation (Holland and Keil, 1989). A habitat includes those ecological conditions which support an organism or biological population. Communities are naturally occurring assemblages of plants that are relatively consistent in physiognomy and species composition from one location to another. Plant communities and their associated wildlife indicate the presence of a suitable habitat. Ruderal ("weedy"), landscaped, and agricultural plant assemblages are referred to as vegetation or cover types as they are human-induced and not naturally occurring.

Eight habitat types, four natural and four human induced, supporting various plant communities and wildlife have been identified within the City of Modesto's urban area:

- a. Valley Foothill Riparian
- b. Riverine

- c. Wetland
- d. Grassland
- e. Pasture
- f. Cropland
- g. Orchard-Vineyard
- h. Urban

a. Valley Foothill Riparian. Valley foothill riparian habitat is composed of the vegetation and wildlife areas adjacent to rivers, and perennial and intermittent streams. Riparian habitat in the Modesto area occurs along the Stanislaus and Tuolumne Rivers, and Dry Creek. Riparian areas are helpful in maintaining the stability of streambanks and the configuration of streams. Vegetation in this habitat is also beneficial to the quality of stream water since polluting nutrients are absorbed before reaching open water. Common streamside plant species include: willow, cottonwood, box elder, buttonbush, Oregon ash, wild grape, and California blackberry.

The importance of riparian areas to wildlife is related primarily to vegetation structure and presence of water. Riparian habitat provides abundant food, water, escape, nesting, and thermal cover for mammals, birds, amphibians, reptiles, and invertebrates, while also serving as migration and dispersal corridors for these animals (Stanley et al., 1991; Mayer and Laudenslayer, 1988). Many invertebrates that are important food sources for other animals live entirely in or near riparian habitats. Amphibians are dependent on these habitats for breeding. Riparian areas provide important refuge areas and winter habitat for migratory bird species in the Pacific Flyway.

Sensitive species associated with riparian habitats include: riparian woodrat, riparian brush rabbit, pallid bat, Pacific Western big-eared bat, Great blue heron, black crowned night heron, western yellow-billed cuckoo, bald eagle, yellow-breasted chat, silvery legless lizard, giant garter snake, western spadefoot toad, western pond turtle, Moestan blister beetle, and Valley elderberry longhorn beetle. Because riparian areas are considered to be of high inherent value for wildlife, CDFG and the U.S. Fish and Wildlife Service (USFWS) believe it is necessary to provide mitigation for any net loss of riparian habitats resulting from development or habitat alteration.

b. Riverine Habitat. Riverine habitat occurs in association with many terrestrial habitats. Riparian habitats are found adjacent to many rivers and streams. The open water zones of large rivers such as the Stanislaus and Tuolumne provide resting and escape cover for many species of waterfowl. Terns, bald eagles, and osprey hunt in open water. Many species of insectivorous birds such as swallows, swifts, and flycatchers hawk their prey over water. Many species of bats also hunt insects over riverine habitats. Predators such as river otters and mink hunt in riverine habitat for fish, invertebrates,

amphibians, and birds. Musk rat and beaver are common mammals found in this habitat.

King or Chinook salmon spawn between October and January east of the City of Riverbank in the Stanislaus River (see Figure 12-1). Historically, they occurred in the Tuolumne River and Dry Creek (Brown and Moyle, 1993). Another sensitive species that potentially occurs in the Tuolumne River is the Sacramento splittail, a large endemic minnow species. Splittails require slow-moving sections of rivers containing submerged aquatic or terrestrial vegetation for major portions of their life cycle (Moyle, et al., 1989). Riverine habitat provides unique cover, sources of food, breeding and spawning, yet cannot be separated from riparian habitat when evaluating for potential impacts.

c. Wetlands. Wetlands are transitional areas between terrestrial and aquatic systems that include marshes, seasonally flooded grasslands, and the fringes of ponds. Mayer and Laudenslayer (1988) refer to this habitat as fresh emergent wetlands that occur in association with terrestrial habitats or aquatic habitats, such as riverine. These sensitive areas occur adjacent to streams, lakes, and as a result of blockage of normal water runoff channels. Wetlands provide a diverse array of plant and wildlife communities and are considered to be among the most productive wildlife habitats in California. Wetlands are important to amphibians, herons and egrets, waterfowl, and shorebirds. This habitat is valuable to sensitive species such as the Aleutian Canada goose, bald eagle, and giant garter snake (Mayer and Laudenslayer, 1988).

d. Grassland Habitat. Grassland habitat is divided into either perennial or annual grasslands by Mayer and Laudenslayer (1988). Grassland habitat is made up of a mixture of annual and perennial grasses, herbs, and wildflowers. However, for the most part grassland plant communities are dominated by nonnative annual grasses with small pockets of native perennial bunch grasses. Native bunch grasses are not classified as threatened or endangered, but their populations have declined greatly in the San Joaquin Valley with the loss of the large herds of grazing animals such as tule elk and pronghorn and their associated predators. Perennial grasses coevolved with these wildlife species (Edwards, 1991).

Grasslands provide food and cover for shrews, rodents, rabbits, birds and reptiles. Many of these wildlife species are a food source for snakes, raptors, and carnivores common to grassland communities. This is an important foraging habitat for predators. Sensitive species and communities that may occur in this habitat include: American badger, San Joaquin kit fox, ferruginous hawk, black-shouldered kite, northern harrier, Swainson's hawk, greater sandhill crane, burrowing owl, short-eared owl, California horned lark, loggerhead shrike, California tiger salamander, blunt-nosed leopard lizard, Valley oak, beaked clarkia, Colusa grass, San Joaquin orcutt grass, Greene's tuctoria, and vernal pools.

e. Pastures. Pastures often occur in association with agricultural habitats and may be found adjacent to riparian and grassland habitats. The vegetation is a mix of perennial

grasses and legumes that provide 100 percent canopy closure. The vegetation mix varies according to management practices such as seed mixture, fertilization, soil type, irrigation, weed control, the type of livestock, stocking rates, and grazing duration. Pastures are used by a variety of wildlife. Ground-nesting birds such as waterfowl and pheasants nest in pastures, if adequate vegetation is present at the onset of the nesting season. Some of the highest pheasant counts have been recorded in irrigated pastures in Stanislaus County (Mayer and Laudenslayer, 1988). Flood irrigation of pastures provides feeding and roosting sites for many wetland associated birds such as shorebirds, wading birds, waterfowl, and raptors. Deer may graze pastures provided there is adequate cover adjacent to the pastures. The Aleutian Canada goose winters in pastures west of Modesto. Greater sandhill cranes use irrigated pastures for foraging.

Vernal pools are a sensitive community that occur in pastures, grasslands, and woodlands in Stanislaus County (Bianco, 1994). Vernal pools will be discussed in depth under "Sensitive Species and Areas" below.

f. Croplands. Croplands occur in association with orchard-vineyard, pasture, grassland, and riparian habitat types. Croplands are regulated by the crop cycles in California. Most crops tend to be annuals and are managed in a rotation system. Croplands have been established on the state's most fertile soils, which historically supported an abundance of wildlife. Croplands have greatly reduced the wildlife richness and diversity in the state. However, many species of rodents and birds have adapted to agriculture and are considered pests to crops. Wildlife such as waterfowl and sandhill cranes that use waste grains after harvest are not considered pests or "problem wildlife." Bats, which prey primarily on insects, and raptors that feed on rodents are beneficial to croplands. Crop patterns and cultural practices that include clean farming, double cropping, and chemical control can be detrimental to wildlife (Robinson, 1990; Mayer and Laudenslayer, 1988).

Sensitive species that may use croplands are California horned lark, tri-colored blackbird, Aleutian Canada goose, and greater sandhill crane.

g. Orchard-Vineyard Habitats. Orchard-vineyard habitats are generally associated with other agricultural types previously mentioned. They are frequently associated with riparian areas and grasslands. These areas have been planted on deep fertile soils which once supported diverse natural habitats. Like croplands, orchards and vineyards support some species of birds and mammals that have adapted to agriculture. Deer and rabbits may browse on the trees or vines, and squirrels and numerous birds feed on fruit and nuts. Common pests that feed on almonds and walnuts are the common flicker, scrub jay, American crow, Brewer's blackbird, house finch, and California ground squirrel. Mourning doves use orchards for cover and nesting sites. Evergreen orchards provide refuge for wildlife during inclement weather or act as shade during scorching San Joaquin Valley summer days. Water used for irrigation can also be utilized by various wildlife species. In western Stanislaus County, the San Joaquin kit fox is known to use orchards for den sites.

h. Urban Areas. Urban areas include a variety of plants that are relatively static because of maintenance. Extensive planting of exotic and nonnative vegetation in urban areas can reduce the diversity of wildlife species within a region. Three urban categories relevant to wildlife are distinguished by Mayer and Laudenslayer (1988), as follows: downtown, urban residential, and suburbia.

The downtown is usually at the center followed by concentric zones of urban residential and suburbs. There tends to be a progression outward of decreasing development and increasing vegetative cover. Within the downtown area biodiversity tends to be low with house mice, rats, rock dove, house sparrow and starlings comprising most of the species. The urban residential zone is characterized by a more varied mosaic of vegetation, providing habitat for jays, mockingbirds, house finch, sparrows, hummingbirds, raccoons, opossum, and striped skunks. Suburban areas with mature vegetation closely approximates a somewhat natural environment and a proportionately greater number of native species occur. Various species of small passerine birds occur in this area along with California quail, deer, rabbits, striped skunk, coyote, gopher snake, and western fence lizard. Few if any sensitive species may exist in urban environments in the Modesto urban area.

3. Habitats and Species of Concern

a. Wetlands and Riparian Habitats. Section 404 of the Clean Water Act requires that a permit be obtained prior to discharging any dredged or fill materials into "waters of the United States." The latter term has been defined as all navigable waters or any other waters that are related to interstate or foreign commerce, including "wetlands" adjacent to such waters (USACE 33 CFR 328.3). This includes intermittent streams that are hydrologically connected to navigable waters. The stream channels of the Tuolumne and Stanislaus Rivers and Dry Creek and other wetlands such as marshes, bogs, or ponds would likely be subject to Section 404 jurisdiction.

The CDFG has direct jurisdiction pursuant to CDFG Code Sections 1601-1603 in regard to any proposed activities which will divert, obstruct, or change the natural flow of any river, stream, or lake designated by the department. This is a Streambed Alteration Agreement that would apply to Dry Creek, the Tuolumne River, the Stanislaus River, and all of the canals.

b. Sensitive Species. Several sensitive species known to Stanislaus County occur in habitat types identified in the area. State species of special concern, listed, and candidate plant and animal species possibly occurring around the City of Modesto, their status, and habitats are presented in Appendix F - Biological Appendices. They are:

(1) Plants and animals that are listed or proposed for listing as rare, threatened, or endangered under the California Endangered Species Act (CDFG, 1989) or Federal Endangered Species Act (50 CFR 17.11 and 17.12, January 1, 1989).

(2) Plants and animals that are candidates for potential future listing as threatened or endangered under the Federal Endangered Species Act (50 CFR Part 17, September 27, 1985; 50 CFR Part 17, January 6, 1989).

(3) Plants included in the California Native Plant Society's (CNPS) "Inventory of Rare and Endangered Vascular Plants of California" (Skinner and Pavlik, 1994).

(4) Animals that are designated by the CDFG as "species of special concern" (Remsen, 1978; Williams, 1986).

Plants included in List 1A of the CNPS Inventory are presumed extinct in California, but potentially could be rediscovered and should be considered during the preparation of environmental documents relating to the California Environmental Quality Act (CEQA). Plants on List 1B of the CNPS Inventory are considered rare, threatened, or endangered in California and elsewhere, are eligible for state listing, and are likely to meet the biological criteria that require the plants to be considered under CEQA Guidelines. Plants on the CNPS List 4 are plants of limited distribution that are of local significance and should be considered during the preparation of environmental documents (Skinner and Pavlik, 1994).

California species of special concern have no special legal status. Species in this category are those whose breeding populations in the state have declined severely or are otherwise so low that extirpation is a real possibility (Remsen, 1978). This list is to help land management agencies, developers, landowners, and the general public take action to protect these declining populations before they become threatened or endangered.

Sensitive species and communities that potentially occur in habitats of the Modesto urban area are discussed below. Species discussed herein were determined by consultation with appropriate agencies, information provided by the Natural Heritage division of CDFG from the California Natural Diversity Database (CNDDB), and review of the CNPS Inventory of Rare and Endangered Vascular Plants of California (Skinner and Pavlik, 1994). Their decline can be attributed to habitat loss and degradation through agriculture and urban development, unplanned continuous grazing, and other human-induced actions.

Sensitive species such as the San Joaquin kit fox, greater western mastiff bat, American peregrine falcon, foothill yellow-legged frog, Kern brook lamprey, Hoover's rosinweed, Mt. Hamilton harebell, Mt. Hamilton thistle, Mt. Hamilton coreopsis, diamond-petaled poppy, talus fritillary, Mt. Diablo phacelia, and Hartweg's golden sunburst occur in Stanislaus County but are not known to exist within Modesto's proposed area of annexation (CNDDB 1994).

Vernal pools are shallow ephemeral bodies of water that occupy depressions in grasslands, pastures, and woodlands (Holland and Kiel, 1989). These areas fill with water during winter rains and subsequently dry up during the spring and early summer. A specialized group of ephemeral species has evolved that occupy the drying pools and

are endemic to California. Sensitive species that occur in vernal pools in Stanislaus County include: alkali milk vetch, crowscale, succulent owl's clover, Hoover's spurge, dwarf downingia, spiny sepaed button-celery, legenera, little mousetail, Colusa grass, California adder's-tongue, San Joaquin Orcutt grass, hairy Orcutt grass, delta woolly-marbles, round woolly-marbles, Greene's tuctoria, vernal pool fairy shrimp, vernal pool tadpole shrimp, California tiger salamander, and western spadefoot toad. Much of the area formerly occupied by vernal pools has been converted to agricultural uses. Urbanization has also destroyed many vernal pools and threatens still more (Holland and Kiel, 1989). Potential habitat for vernal pools exist east and north of Modesto.

Grassland associated species of concern include: beaked clarkia, small-flowered morning glory, Hoover's cryptantha, red-flowered lotus, and Merced monardella. Merced monardella is believed to be extinct in the state, but must still be considered during environmental review of an area (Skinner and Pavlik, 1994). Primary impact to grassland communities has been the practice of continuous unplanned grazing that results in the overgrazing of plants and ultimately their decline and loss.

c. Species of Special Concern. Several California Species of Special Concern are known to occur in Stanislaus County and adjacent to Modesto (see Appendix F - Biological Appendices). While species in this category have suffered declines in breeding populations, they have no special legal status. However, it is in the best interest of any proposed development, as well as the species, to afford it the same protection as legally protected species.

(1) Sacramento Splittail. The Sacramento splittail was once widely distributed in lakes and rivers throughout the Central Valley. They currently are found in the Delta and other parts of the Sacramento-San Joaquin estuary (Moyle, et al., 1989). Surveys in the San Joaquin Valley have reported observations in the San Joaquin River below the mouth of the Merced River and upstream of the confluence of the Tuolumne River (Brown and Moyle, 1993). Splittail require slow-moving sections of rivers and sloughs containing vegetation for major portions of their life cycle. The Stanislaus and Tuolumne Rivers are considered potential habitat for the splittail.

(2) Silvery Legless Lizard. The silvery legless lizard is a subspecies of the California legless lizard. It frequents streamside growth of sycamores, cottonwoods, and oaks. Bush lupine is often an indicator of suitable conditions for this species (Stebbins, 1985). It burrows in loose alluvium near permanent or intermittent streams. These lizards remain concealed during the day and emerge at dusk or at night. Riparian habitats near Modesto are potentially suitable areas for this species to occur.

(3) Black-Shouldered Kite. The black-shouldered kite is a fully protected species in California. It is a state resident species that shifts about locally and seasonally in accordance with food supply (Grinnell and Miller, 1944). It feeds primarily on small diurnal mammals, specifically the California meadow vole (Stendell and Myers, 1973; Warner and Rudd, 1975). These rodents are found primarily in open pastures, grasslands, meadows, and marshes. Black-shouldered kites hunt from a hovering position

over these open areas and perch in adjacent trees or on fence posts. Isolated dense topped trees are used for nesting (Grinnell and Miller, 1944).

(4) Northern Harrier. The northern harrier, which is a year-round resident and winter migrant, typically inhabits lowland marshlands, but also occurs in pastures, edges of orchards and cropland, and grassland habitats. Unplanned continuous grazing has had an adverse effect on populations nesting in grasslands and has contributed to the species decline (Remsen, 1978).

(5) Cooper's Hawk and Sharp-Shinned Hawk. The Cooper's hawk and sharp-shinned hawk are uncommon winter residents and rare breeding residents during spring and summer. Favored habitats include woodland edges and riparian habitat, but they may hunt in orchards. Habitat destruction, pesticides, and human disturbance at nest sites have contributed to the decline of these species (Remsen, 1978).

(6) Golden Eagle. The golden eagle is a year-round resident in California that typically inhabits rolling foothill or coastal terrain where open grassland supports prey species (ground squirrels, jack rabbits, etc.). Habitat destruction, shooting, and human disturbance at nest sites are major threats to this species (Remsen, 1978). The golden eagle could be expected to occur on at least an occasional basis in grassland habitat around the City.

(7) Burrowing Owl. The burrowing owl is a year-round resident that inhabits open, dry, generally level grassland habitat, and is dependent upon larger burrowing mammals (notably the California ground squirrel) for its subterranean nesting needs (Remsen, 1978). This small owl is known to occur east of the junction of the Tuolumne and San Joaquin Rivers.

(8) Short-Eared Owl. The short-eared owl once bred locally throughout California where suitable habitat was available. This species is not known to nest anymore in the San Joaquin Valley (Remsen, 1978). This species is common in winter in marsh and grassland habitat. Destruction of these areas and shooting has reduced the population of short-eared owls in the San Joaquin Valley and throughout its historic range in California (Remsen, 1978).

(9) Yellow-Breasted Chat. The yellow-breasted chat is considered a rare and local breeder in the San Joaquin Valley that occurs in riparian woodlands (Remsen, 1978). Besides habitat destruction, parasitism of nests by cowbirds is thought to be another factor in the decline of the chat (Remsen, 1978).

(10) Pallid Bat. The pallid bat is found in open lowland areas such as grasslands. This bat moves about locally on a seasonal basis, but is not migratory (Jameson and Peeters, 1988). During the day pallid bats roost in buildings, crevices, caves, mines, and hollow trees (Whitaker, 1980). The pallid bat has declined due to destruction of maternity roosts. These bats could be expected to occur within the City of Modesto's urban area and proposed area of annexation.

(11) American Badger. The American badger occupies a diversity of habitats. Principal habitat requirements seem to be sufficient prey (pocket gophers, ground squirrels, etc.), friable soils, and relatively open, uncultivated land (Williams, 1986). Due to the elusive and nocturnal nature of this species, it is not readily observed and nocturnal spotlight surveys would be necessary to determine its presence.

d. Threatened and Endangered Species

(1) Moestan Blister Beetle. The Moestan blister beetle is a federal Candidate 2 species for listing as threatened or endangered. This beetle feeds primarily on plants and is associated with lupine and filaree (Selander, 1960). Larvae prey on grasshopper eggs and may act as parasites on bees. The blister beetles contain cantharadin, a blister causing substance that is secreted as a defensive action (Selander, 1960). These beetles are known to occur in Stanislaus County.

(2) Valley Elderberry Longhorn Beetle. Valley elderberry longhorn beetle (VELB) is a cylindrical beetle less than an inch long that feeds and lays its eggs on elderberry shrubs in riparian communities in the Central Valley (Steinhart, 1990). This species is threatened by urban development, insecticides and herbicides, and fluctuation in water levels. Restoration of this species to former habitats include the protection and reintroduction of elderberry bushes. Populations of this beetle are known to occur in Stanislaus County (CNDDDB, 1994).

(3) California Tiger Salamander. The California tiger salamander is a large, stocky salamander that frequents the quiet water of ponds, reservoirs, lakes, vernal pools, and streams (Stebbins, 1985). It is a Federal Candidate 1 species for listing as threatened or endangered. They occur in open woodland and grassland using ground squirrel burrows for refuge. Known sightings of tiger salamander have been documented near the Stanislaus River northwest of Modesto.

(4) California Red-Legged Frog. The California red-legged frog is proposed for federal listing as endangered. It is a large western native frog that frequents marshes, slow parts of streams, lakes, reservoirs, ponds, and other usually permanent water. Areas of potential red-legged frog habitat include the riparian habitats found within the surrounding area of Modesto.

(5) Western Spadefoot Toad. Western spadefoot toads prefer areas of open vegetation and short grass where the soil is sandy or gravelly (Stebbins, 1985). They breed in quiet streams and vernal pools. This species has been recommended for listing as a Category 2 species by the USFWS and is a state species of special concern.

(6) Southwestern Pond Turtle. The southwestern pond turtle is a thoroughly aquatic turtle of ponds, rivers, streams, and irrigation ditches that have a rocky or muddy bottom with a variety of aquatic vegetation. They bask on logs, cattail mats, and mudbanks (Stebbins, 1985). Riparian areas and ponds in Stanislaus County are suitable habitat for pond turtles. It is a Candidate 2 species for listing as threatened or endangered.

- (7) Giant Garter Snake. The giant garter snake is a state and federal threatened species. This shy snake, which can grow up to five feet long, lives in riverine marshes, seasonal wetlands, sloughs, and irrigation ditches in the Central Valley. It feeds primarily on fish and frogs (Steinhart, 1990). This snake is susceptible to pesticides and predation by skunks, house cats, raccoons, and predatory game fish such as largemouth bass (Steinhart, 1990).
- (8) Greater Sandhill Crane. The greater sandhill crane is a state threatened species that winters in the San Joaquin Valley. These large birds feed during the day in pastures, croplands, and marshes. They are between three and four feet tall, live up to 80 years, and mate for life. Collisions with powerlines are a major cause of death in winter when utility wires are shrouded in fog (Steinhart, 1990).
- (9) Aleutian Canada Goose. The Aleutian Canada goose is a smaller subspecies of the familiar Canada goose. These birds winter primarily in the San Joaquin Valley. It feeds in pastures and croplands in Stanislaus County west of Modesto near the junction of the Stanislaus and San Joaquin Rivers, and west of the junction of the Tuolumne and San Joaquin Rivers. Listed as endangered, the USFWS in 1989 proposed that this goose be reclassified to threatened status. Populations have recovered from a low of 790 birds to close to 6,000 (Steinhart, 1990).
- (10) Southern Bald Eagle. The southern bald eagle winters in the foothills of the San Joaquin Valley. They are classified as endangered by both the state and federal governments. Bald eagles feed along open waterways of streams and rivers. Riparian/riverine habitat and open grasslands are important wintering areas for this species (Mayer and Laudenslayer, 1988).
- (11) Swainson's Hawk. Swainson's hawks nest along the Stanislaus and San Joaquin Rivers in Stanislaus County. These birds require suitable foraging areas such as grasslands, alfalfa, and/or grain fields supporting rodent populations adjacent to nesting areas. Female Swainson's hawks require territories up to 2,200 acres and males four to five times that size (Steinhart, 1990). Known nest sites occur along the Stanislaus River adjacent to the City of Modesto's proposed area of annexation (CNDDB 1994).
- (12) Ferruginous Hawk. The ferruginous hawk gets its name from its rusty colored leggings that form a conspicuous "V" against whitish underparts. This hawk primarily winters in California inhabiting dry open grasslands and pastures hunting for small rodents. The ferruginous hawk has declined dramatically in California and is a federal candidate (Category 2) for listing as threatened or endangered. Its status in Stanislaus County is unknown.
- (13) Western Yellow-Billed Cuckoo. The western yellow-billed cuckoo is a riparian forest nester of larger river systems such as the Stanislaus. It winters in South America and returns to California in the summertime to nest (Steinhart, 1990). The cuckoo feeds on insects and treefrogs. This species is listed as state endangered and may be

extirpated in Stanislaus County. The last known occurrence was in 1973 at the mouth of the Stanislaus River (CNDDDB 1994).

(14) California Horned Lark. The California horned lark is a Category 2 federal candidate for listing as threatened or endangered. These insect eating birds are ground nesters in grassland habitat (Suddjian, 1990). They build a loose cup nest of dry grass and plant stems that is lined with plant down and hair. Small pebbles or pieces of dung may be placed around the nest (Suddjian, 1990).

(15) Loggerhead Shrike. The loggerhead shrike is another federal candidate for listing as threatened or endangered. Shrikes hunt from a low perch, usually fence posts, adjacent to open grassy areas. They nest 4 to 20 feet above the ground in a nest constructed of twigs, weed stems, and rootlets. The nest is lined by fine grasses, plant down, feathers, and hair (Suddjian, 1990).

(16) Tricolored Blackbird. The tricolored blackbird is a federal candidate (category 2) for listing as threatened or endangered. A state resident, the tricolored blackbird is partly migratory within the Sacramento-San Joaquin drainage system and breeds in the San Joaquin Valley (Grinnell and Miller, 1944; Beedy, 1989). Nesting habitat is in the vicinity of fresh water, primarily marshy areas. Important sites for nesting colonies are heavy growth of cattails and tules. Tricolored blackbirds also nest in other vegetation such as thistles, willows, blackberries, mustard, nettles, salt cedar, giant cane, and wild roses (Beedy, 1989). Flooded lands, grassy fields, and margins of ponds are typical foraging grounds (Grinnell and Miller, 1944).

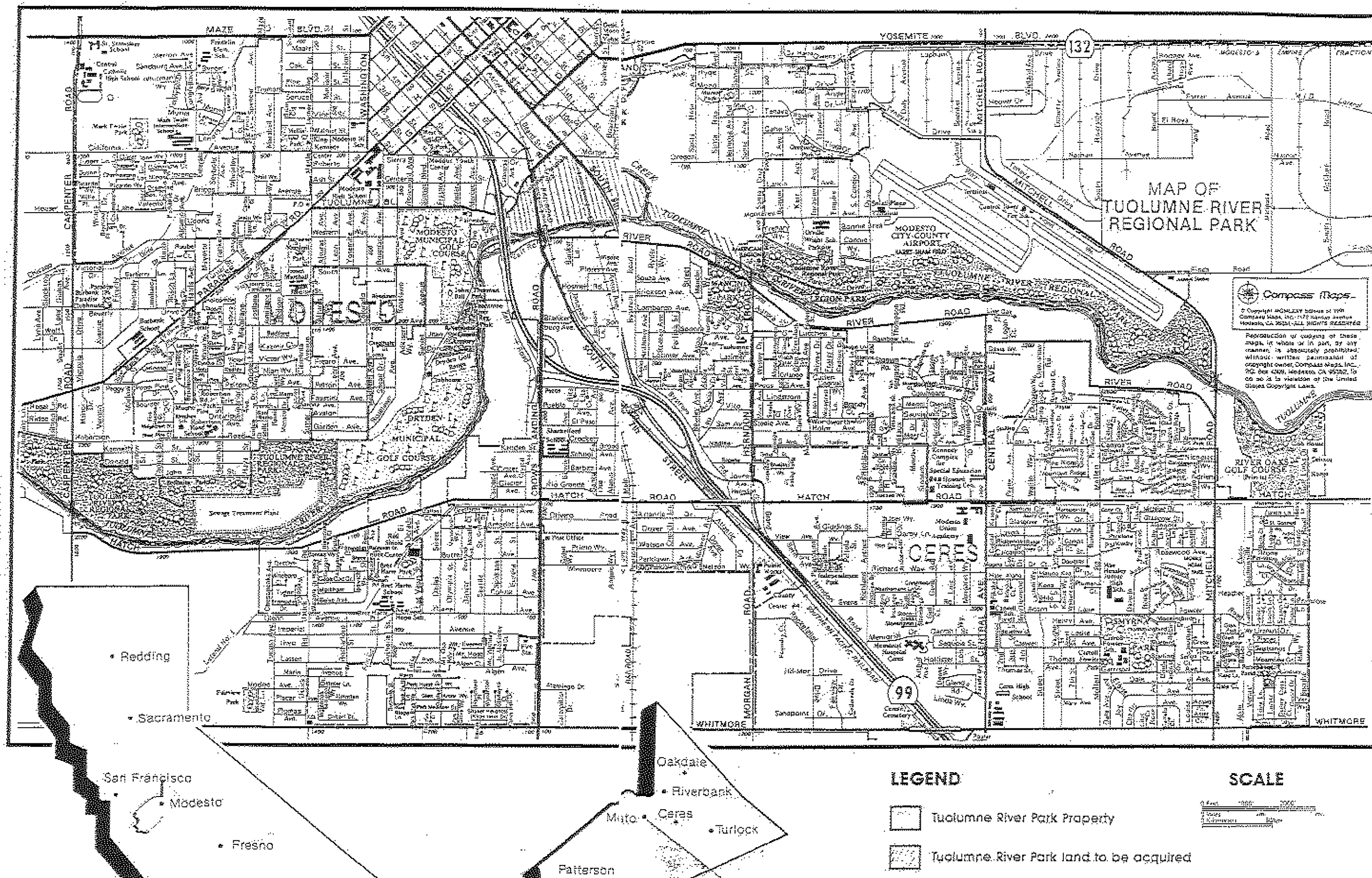
(17) Pacific Western Big-Eared Bat. The Pacific western big-eared bat is a candidate for listing as threatened or endangered by the USFWS. These bats live in a variety of communities throughout California, including broad-leaf forests, oak and conifer woodlands, arid grasslands, and high elevation forests. Roost sites for the big-eared bat include limestone caves, lava tubes, mine tunnels, bridges, buildings, and other human-made structures (Williams, 1986; Pierson, 1988). Recent roost sites have been discovered in eastern Stanislaus County (Bianco, 1994).

(18) Riparian Woodrat. Riparian woodrats are known only from areas along the San Joaquin, Stanislaus, and Tuolumne Rivers. The current status of this species is unknown, but is a Candidate 2 species for listing as endangered or threatened. This habitat has been diminished along riparian corridors by regulation of stream flow, stream channelization, cultivation of floodplains, and brush and tree removal (Williams, 1986).

(19) Riparian Brush Rabbit. Riparian brush rabbits occupy dense thickets of wild rose, willows and blackberries growing along the banks of rivers in Stanislaus County. The only known population is found on the lower part of the Stanislaus River in Caswell State Park (Williams, 1986). However, there are probably other colonies along the River that have not been discovered (Williams, 1986). This rabbit is a federal Candidate 1 species for listing as threatened or endangered.

Appendix D

Area Map - Tuolumne River Regional Park

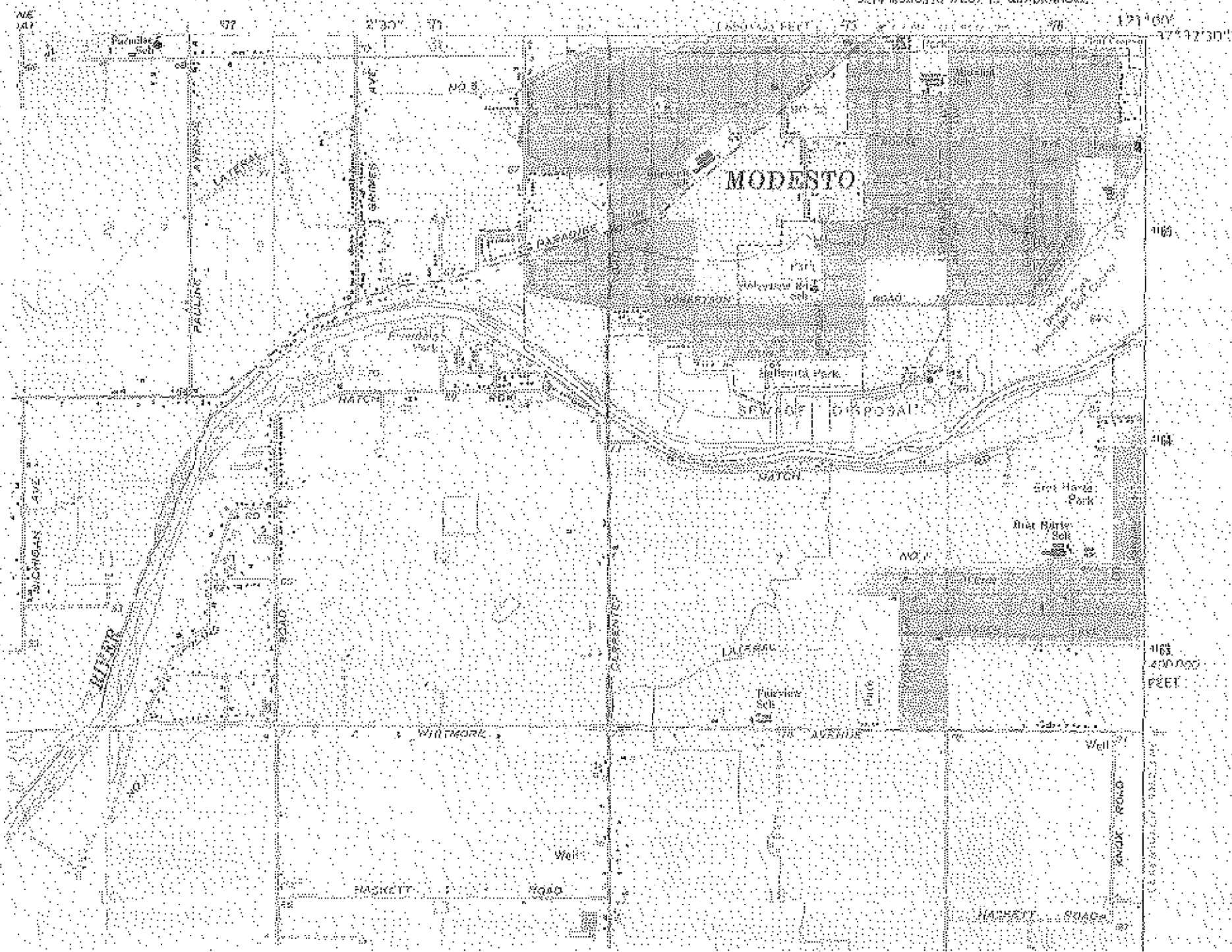


Appendix E

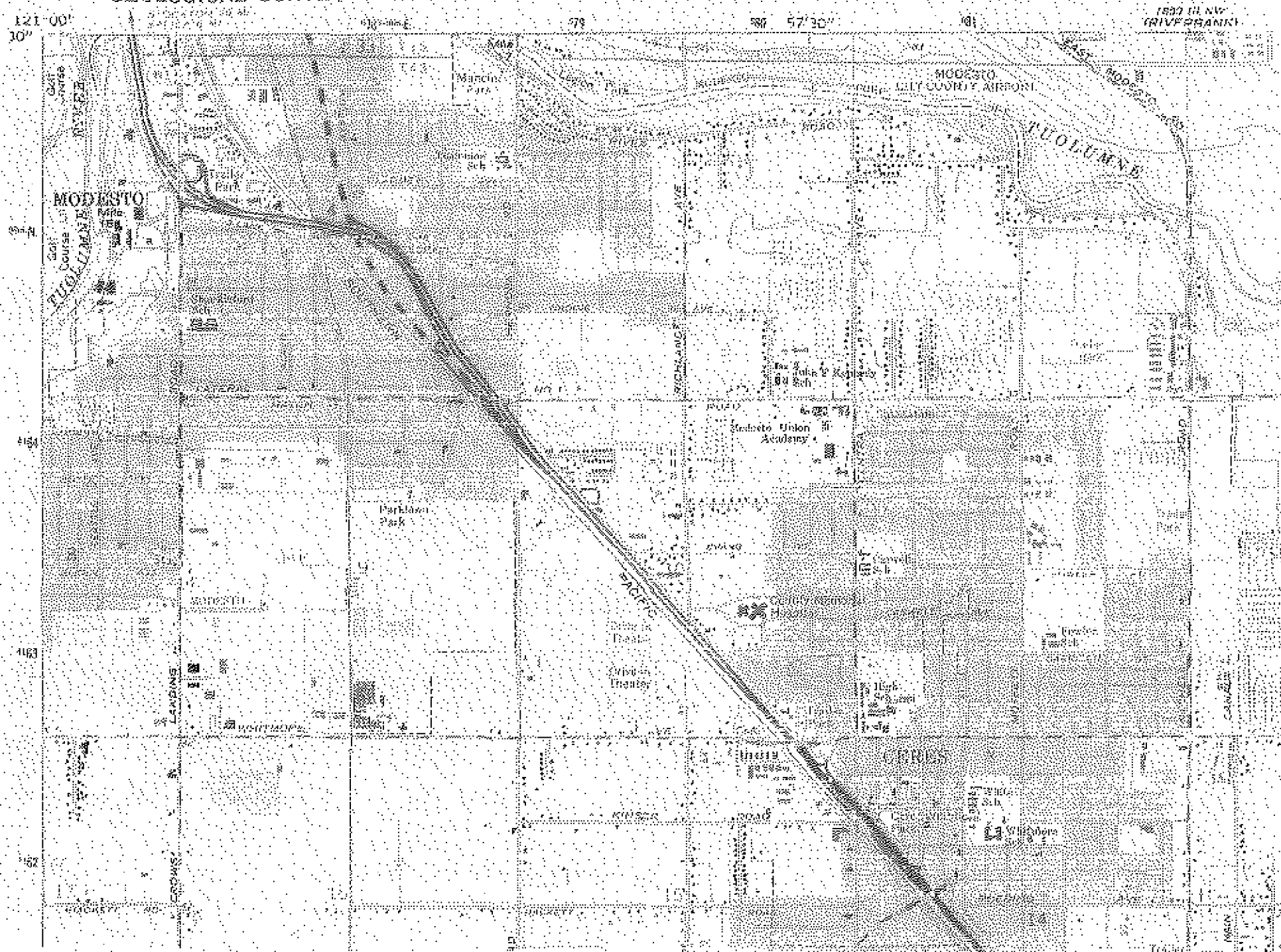
Portions of USGA Quad Maps (Brush Lake, Ceres and Riverbank)

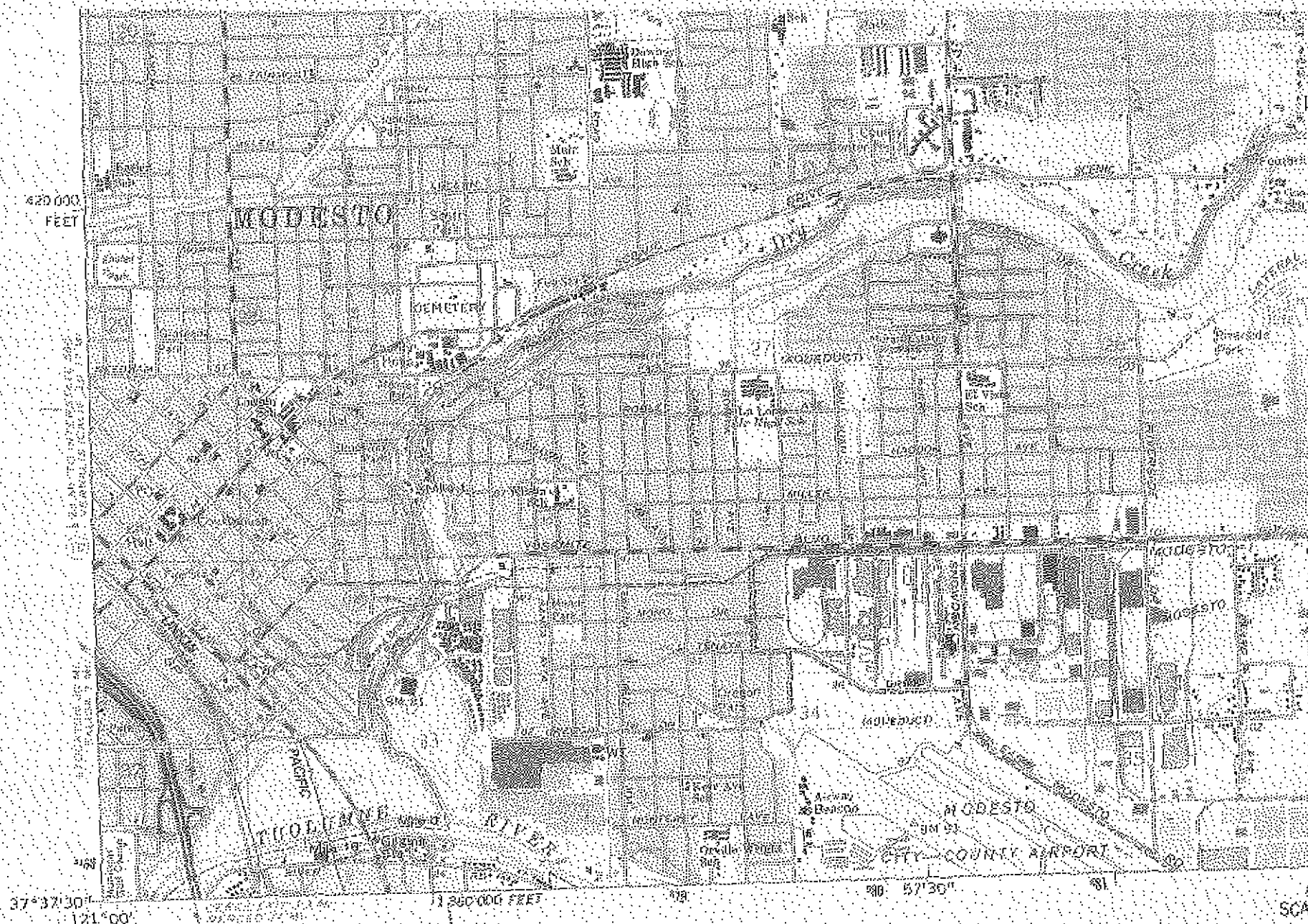
CALIFORNIA-STANISLAUS CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
SECTION: MONTESSA WEST 13 QUADRANGLE

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OVERBAK



STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES





Mapped, edited, and published by the Geological Survey
 Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial
 photographs taken 1967. Field checked 1969
 Supersedes map dated 1914, revised 1953

Polyconic projection. 1927 North American datum
 10,000-foot grid based on California coordinate system, zone 3
 1000-meter Universal Transverse Mercator grid ticks



CONTOUR
 NATIONAL GEODESY

Appendix F

Tuolumne River Regional Park Commission Agenda Report

April 5, 1999

TO: Tuolumne River Regional Park Commission

FROM: James E. Niskanen, Acting Director of Community Services and Neighborhood Connections

SUBJECT: **TUOLUMNE RIVER REGIONAL PARK LAND USE PLAN UPDATE AND GATEWAY MASTER PLAN**

RECOMMENDED COMMISSION ACTION:

Consider approving staff recommendation to enter into an agreement with EDAW, Inc. for preparation of the Tuolumne River Regional Park Land Use Plan Update and Gateway Master Plan and related environmental documents, and consider authorizing the City of Modesto to transfer \$75,000 from the TRRP operating budget to the Land Use Plan Update Capital Project.

BACKGROUND:

Of the 550 acres of land acquired by the Tuolumne River Regional Park Joint Powers Authority, 180 acres have been developed. The remainder of the land is riparian habitat and other parcels comprised of vacant land previously impacted by agriculture and urban uses, including former landfill sites and wastewater treatment plant sludge storage areas. The developed portion of the park is visited annually by thousands of people from throughout the region. The agencies have spent nearly \$8.5 million for acquisition, development and operation of the park to date and there has been a renewed community-wide interest and focus on achieving the overall vision of the Land Use Plan.

The 1968 Comprehensive Land Use Plan was adopted and specific Master Plans for specific areas were developed in subsequent years. In 1995, the final significant acreage was acquired (Podesto property). This area, referred to as the Gateway Property, is in need of a specific Master Plan. Further, due to changes in environmental regulations and regional interests, the Land Use Plan is in need of revision. It is not the intent of this project to discard the previous work and begin an entirely new effort. Current evaluation will build on the previous work, in order to evaluate the original assumptions and land use choices, in light of contemporary issues, constraints and opportunities.

The City of Modesto, on behalf of the Tuolumne River Regional Park Agency, will contract for specialized planning consultant services to provide a comprehensive update to the 1968 Land Use Plan for the Tuolumne River Regional Park. In addition to the broader evaluation for the entire park, there is a need for a Comprehensive Master Plan for the 80-acre central segment, the Gateway of the park. There is a sense of urgency to complete a Master Plan for this segment due to several major issues and peripheral projects which are now planned and which will impact the central segment.

Staff anticipates that the Land Use Plan Update will involve the following components:

1. Review all available literature and technical documents pertaining to the Regional Park, as well as pertinent Federal, State and local regulations which may affect the implementation of the Land Use Plan.
2. Validate certain planning, engineering, and regulatory assumptions of the 1968 Land Use Study and subsequent Master Plans and evaluate various programs outlined in the Land Use Plan for effectiveness, current market acceptance and overall practicality.
3. Conduct public meetings for input toward the overall process by engaging the general public to solicit input on the type of recreational and open space opportunities desired in the Regional Park.
4. Facilitate meetings with a "Citizens Advisory Group" as well as selected interest groups in order to build consensus on recommendations for changes that might occur to the Land Use Study as a result of the planning process.
5. Revise the Land Use Plan based on the outcomes of the planning process, including preparation of a "Notice of Preparation" and an "Environmental Analysis" to determine appropriate level of environmental review under CEQA and NEPA, respectively. Agency staff should be engaged in the review of these documents.
6. Develop a Master Plan for the center Gateway section of the Park that is sensitive to the ecological needs of the River, yet able to capitalize on the excellent public access opportunities existing and planned for this area. A detailed cost estimate should also be provided.
7. Develop an Implementation Strategy for the revised Plan, including costs and staging estimates with plans for incremental development as funds become available as well as recommendations for additional land acquisition.
8. Develop multimedia tools for the promotion of the Plan's vision to stimulate continued excitement about the Land Use Plan update and to solicit community involvement in its implementation.

Requests for Qualifications were sent out last fall to prospective firms and collaborative groups. Staff was particularly interested in firms with experience with: large scale, water related parks; environmental, engineering and regulatory framework of the use, restoration and management of river corridors in California; integration of major riverfront recreation developments with "Downtown" redevelopment efforts; public outreach; and, a team approach and phasing, including the ability to assemble and manage an interdisciplinary consultant team. On December 9, 1998, a mandatory pre-proposal meeting was held at Legion Hall.

Representatives from six firms attended. They were given an overview of the project as well as extensive written materials related to the Regional Park. A tour of the park was also included. They were then invited to participate in the Request for Proposal process.

Proposals were due to the City on January 14, 1999. Three firms were interviewed on February 11, 1999. Interviews were conducted by City employees Jim Niskanen (Acting Director of Community Services and Neighborhood Connections), Fred Allen (Parks Planning & Development Manager), Patrick Foran (Strategic Planning Manager), Brian Smith (Principal Planner), Mike Herrero (Business Development Manager), Glen Lewis (Director of Engineering and Transportation), and by Paul Neumann of the Great Valley Center. Although all three firms selected for the interview process were highly qualified and would bring a wealth of resources to the project, two were given consideration. Staff has visited projects undertaken by these firms and spoken to past clients.

Wallace Roberts & Todd (environmental planning, urban design, landscape architecture and architecture) proposed to work in association with Jones & Stokes Associates, Inc. (environmental planning), Economics Research Associates (economics and finance) and Phillip Williams & Associates (hydrology). This team's approach would be to address the: development of an ecological baseline; cultural history; community values; implementation opportunities; recreation program; urban form; market realities; and, legal constraints. They list the important elements of a Land Use Plan as balance, connections, synergy, flexibility and certainty.

EDAW, Inc. (an environmental planning and design firm specializing in natural resource management and biological and economic services) proposed to use as subcontractors: McBain and Trush (for applied fluvial geomorphic and ecological studies related to river preservation, management and restoration); Stillwater Sciences (for riparian and aquatic ecology); and HDR Engineering (for hydrology, hydraulics, river systems analysis and modeling, utilities and cost estimating). This group lists several key ideas that underlie its approach to the project: Maintain the vision ahead of its time; consider a more river specific park focus; develop "community partners" for the park; innovative flood control measures; Regional Park as outdoor classroom; planning process as a major outreach opportunity; and, the Gateway parcel as strategic connection.

Cella Barr Associates, Inc. (park design and river corridor specialists) proposed to work in conjunction with Envicom Corporation and David Taussig & Associates. This team believes there are four key criteria to ensure a successful endeavor for this project: efficient management; imaginative design; a focus on user needs; and environmental sensitivity.

Cella Barr Associates would provide engineering, community outreach and landscape architecture components of the project, Envicom would provide expertise on environmental resources issues, and David Taussig & Associates would provide economic evaluations.

Staff is recommending that the Commission authorize the City of Modesto, on behalf of the JPA, to enter into a contract with EDAW, Inc. This firm is the most qualified for this project, and will bring the needed blend of concern for preservation of the natural riparian habitat and architectural and environmental expertise. EDAW, Inc.'s proposal was for an amount not to exceed \$192,158, which was also the low bid.

The scope of work as previously described does not include preparation of environmental documents under the California Environmental Quality Act (CEQA) or the National Environmental Protection Act (NEPA). No further development can occur until a Notice of Determination has been filed. Integrating the EIR process into the Land Use Plan Update will allow for more efficient and less costly preparation of the environmental documents. Staff is proposing to add preparation of draft CEQA and NEPA documents to the agreement with EDAW, Inc., increasing the amount of the agreement by approximately \$45,000 for a base contract of \$235,000. Due to the uncertainty of the number and depth of comments following the publication of the draft EIR, an additional amount not to exceed \$25,000 for time and materials for response to comments will be included in the agreement proposal. Maximum cost of the project, including a final EIR report, is \$260,000. Once the environmental documents are completed, development can proceed.

Funding for this project will come from contributions from the three agencies and through grants. In FY 97-98, \$75,000 was budgeted for this capital project. An additional \$75,000 is included in the current fiscal year operating budget; a request to authorize the City of Modesto to transfer this amount to the capital project is part of the recommended action of this agenda item and will be included in the City of Modesto's Third Quarter Budget Status Report to the City Council. The FY 99-00 budget request includes the remaining \$110,000. Staff has submitted a grant request to the Great Valley Center and is submitting a request through the CALFED Bay Delta Program for the additional funding to complete the project and to increase the scope of the agreement with EDAW, Inc. to include preparation of CEQA/NEPA documents. Any grant funding received will reduce the financial obligations of the agencies to this project.

REASON FOR RECOMMENDED ACTION:

In order to continue to preserve the Tuolumne River's natural habitats and provide meaningful recreation opportunities, an update to the Park's Land Use Plan is needed. A Master Plan is also needed for the newly acquired parcel.

The Citizens Advisory Committee met on March 10, 1999 and supported staff's recommendation to contract with EDAW, Inc.

STEPS FOLLOWING COMMISSION ACTION:

As authorized by the Joint Powers Agreement, the Modesto City Council will be asked to 1) authorize the Modesto City Manager to sign the contract with EDAW and 2) authorize transfer of \$75,000 from the operating budget to this capital project.

Prepared and Submitted by: _____
James E. Niskanen, Acting Director

	Scientific Name	Common Name	Locality	Habit	USFWS Hydric Code	SCS Code
28	<i>Cephalanthus occidentalis</i> var. <i>californicus</i>	Button Bush	N	Shrub	OBL	CEOCC2
29	<i>Ficus carica</i>	Edible Fig	IE	Shrub	UPL	FICA
30	<i>Lupinus</i> sp.	Bush Lupine	N	Shrub	UPL	LUSP*
31	<i>Nicotiana glauca</i>	Tree Tobacco	E	Shrub	FAC	NIGL
32	<i>Salix exigua</i>	Narrow-Leaved Willow	IN	Shrub	OBL	SAEX
33	<i>Salix lasiolepis</i>	Arroyo Willow	N	Shrub	OBL	SALA6
34	<i>Salix melanopsis</i>	Dusky Willow	N	Shrub	OBL	SAME2
35	<i>Sambucus mexicana</i>	Blue Elderberry	N	Shrub	FAC	SARA2
36	<i>Toxicodendron diversiloba</i>	Poison Oak	N	Shrub		TODI
37	<i>Rhamnus californica</i> ssp. <i>californica</i>	California Coffeeberry	N	Shrub		RHCACA
38	<i>Vitis californica</i>	California Grape	N	Vine	FACW	VICA5
39	<i>Convolvulus arvensis</i>	Bindweed, Orchard Morning Glory	IE	Vine		COAR4
40	<i>Cucurbita palmata</i>	Coyote Melon	N	Vine		CUPA
41	<i>Rubus ursinus</i>	California Blackberry	N	Vine		RUUR
42	<i>Rubus discolor</i>	Himalayan Berry	IE	Herb		RUDI2
43	<i>Rubus leucodermis</i>	Black Cap Raspberry	N	Herb		RULE
44	<i>Artemisia douglasiana</i>	Mugwort	N	Herb	FACW	ARDO3
45	<i>Baccharis salicifolia</i>	Mule fat, Seep willow, Water wally	N	Herb	FACW	BASA4
46	<i>Centaurea solstitialis</i>	Yellow Star Thistle	IE	Herb		CESO3
47	<i>Chamaesyce albomarginata</i>	Rattlesnake Spurge	N	Herb		CHAL11
48	<i>Chenopodium album</i>	Pig weed, lambs quarters	IE	Herb	FAC	CHAL7
49	<i>Datura wrightii</i>	Jimson Weed	N	Herb		DAWR2
50	<i>Epilobium</i> sp.	Willow Herb	N	Herb		EPSP*
51	<i>Gallium aparine</i>	Goose Grass	N	Herb	FACU	GAAP2
52	<i>Gnaphalium</i> sp.	Everlasting	N	Herb		GNSP*
53	<i>Helianthus annuus</i>	Sun Flower	N	Herb	FAC	HEAN3
54	<i>Mentzelia</i> sp.	Blazing Star	N	Herb		MESP*
55	<i>Mimulus guttatus</i>	Monkey Flower	N	Herb	OBL	MIGU
56	<i>Phytolacca americana</i>	Pokeweed, Pokeberry, Pigeon Berry	E	Herb		PHAM4
57	<i>Plantago</i> sp.	Plantain	E	Herb	FACW	PLSP*
58	<i>Polygonum hydropiperoides</i>	Waterpepper	N	Herb	OBL	POHY2
59	<i>Rumex crispus</i>	Curly Dock	E	Herb	FACW	RUCR
60	<i>Urtica dioica</i> ssp. <i>holosericea</i>	Hoary Nettle	N	Herb	FACW	URDIH
61	<i>Xanthium strumarium</i>	Common Cocklebur	N	Herb	FAC+	XAST